SPYWOLF

Security Audit Report

Completed on

April 3, 2023

OVERVIEW

This audit has been prepared for **Thyrant Inu** to review the main aspects of the project to help investors make make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✔ Contract's source code
- ✔ Owners' wallets
- ✔ Tokenomics
- ✔ Team transparency and goals
- ✔ Website's age, code, security and UX
- ✔ Whitepaper and roadmap
- ✔ Social media & online presence

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

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Thyrant Inu

PROJECT DESCRIPTION

According to their website:

THYRANTINU is a community inspired by creativity and successful projects such as TYRANT (300x) and SHIBA INU (10000X+). The main idea of the project is the opportunity to make money in a bear market.

Release Date: Presale starts in April 5th, 2023

Category: Meme token

CONTRACT INFO

Token Name	Symbol
Thyrant Inu	THINU

Contract Address
0xA7d53F14fEdA7FD8db54A7b0d0f5ec58fD2195f6

Network	Language
Binance Smart Chain	Solidity

Deployment Date	Verified?
Apr 01, 2023	Yes

Total Supply	Status
100,000,000	Not launched

TAXES

Buy Tax	Sell Tax
5%	5%

*Taxess can be changed in future

Our Contract Review Process

The contract review process pays special attention to the following:

- Testing the smart contracts against both common and uncommon vulnerabilities
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat

TOKEN TRANSFERS STATS

Transfer Count	7
Uniq Senders	2
Uniq Receivers	4
Total Amount	199999999 THINU
Median Transfer Amount	18488000 THINU
Average Transfer Amount	28571428.428571425 THINU
First transfer date	2023-04-01
Last transfer date	2023-04-02
Days token transferred	2

SMART CONTRACT STATS

Calls Count	25
External calls	12
Internal calls	13
Transactions count	16
Uniq Callers	3
Days contract called	2
Last transaction time	2023-04-02 18:43:14 UTC
Created	2023-04-01 19:01:50 UTC
Create TX	0x9e75b6206f6140c71b999194ab9442c92b3e4d64c89dfc27d649a2c057ce4ebb
Creator	0x7b4cc738e5ce1644feda52cd409d3a8eb2a747d2

VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed

THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.

FOUND THREATS

⚠ Medium Risk

No medium risk-level threats found in this contract.

⚠ Low Risk

No low risk-level threats found in this contract.

FOUND THREATS

⚠ High Risk

Owner can exclude address from rewards.
If the liquidity pair is excluded from rewards some time after buys/sells has occurred, it will become out of sync and selling will fail.

```
function excludeFromReward(address account) public onlyOwner {
    _isExcludedFromReward[account] = true;
}

function balanceOf(address account) public view virtual override returns (uint256) {
    uint256 show_balance;
     if (_isExcludedFromReward[account]) {
        show_balance =  _basic_balances[account];
    } else {
        show_balance =  _basic_balances[account] +
        (totalFees - holders[account].fee_stamp) * _basic_balances[account] / _totalSupply;
    }
    return show_balance;
}
```

- Recommendation:
  - Exclude liquidity pair from such restrictions.

FOUND THREATS

⚠ High Risk

Balances of addresses which are included in rewards depends will increase over time, based on contract's current total fees accumulated vs accumulated fees on time that user bought the token. Rewards structure is pyramidal - the earlier user entered in (or tax excluded), the more rewards he/she will receive.

```
function balanceOf(address account) public view virtual override returns (uint256) {
    uint256 show_balance;
     if (_isExcludedFromReward[account]) {
        show_balance =  _basic_balances[account];
    } else {
        show_balance =  _basic_balances[account] +
        (totalFees - holders[account].fee_stamp) * _basic_balances[account] / _totalSupply;
    }
    return show_balance;
}


function _transfer(
    address from,
    address to,
    uint256 amount
) internal virtual {
    ...................
        uint256 fromBalance = balanceOf(from);
        _basic_balances[from] = fromBalance - amount;
        _basic_balances[to]  = balanceOf(to) + amount * (100 - all_fee) / 100;
        emit Transfer(from, to, amount * (100 - all_fee) / 100);
        //rewards
        holders[from].fee_stamp = totalFees;
        holders[to].fee_stamp = totalFees;
        totalFees += amount * rewards_fee / 100;
        //burn
        _totalSupply -= amount * burn_fee / 100;
        emit Transfer(from, address(0), amount * burn_fee / 100);
        //marketing
        _basic_balances[_marketing]  = balanceOf(_marketing) + amount * marketing_fee / 100;
        emit Transfer(from, _marketing, amount * marketing_fee  / 100);
        //buyback
        _basic_balances[_buyback]  = balanceOf(_buyback) + amount * buyback_fee / 100;
        ...................
    }
    _afterTokenTransfer(from, to, amount);
}
```

This will lead to rapid token's inflation and eventual liquidity drain, because more tokens are minted as rewards into user's account.

Informational

Owner can exclude address from fees.
When fees are above 0, there will be certain amount of tokens that will be deducted from every transaction that users make. Deducted amount will be as much as the fees % from total amount that user had bought, sold and/or transferred.

```
function excludeFromFee(address account) public onlyOwner {
    _isExcludedFromFee[account] = true;
}
```

Informational

IMPORTANT !

Exploit scenario:
1.Owner excludes liquidity pair from rewards.
2.Owner excludes address A from fees.
3.Address A buys big amount of tokens and get instant rewards (no taxes applied)
4.Address A sells more tokens than it bought (rewards included).
5.Repeat as many times desired.

This process can be automated with smart contract.

RECOMMENDATIONS FOR

GOOD PRACTICES

1. Consider fundamental tradeoffs
2. Be attentive to blockchain properties
3. Ensure careful rollouts
4. Keep contracts simple
5. Stay up to date and track development

Thyrant Inu

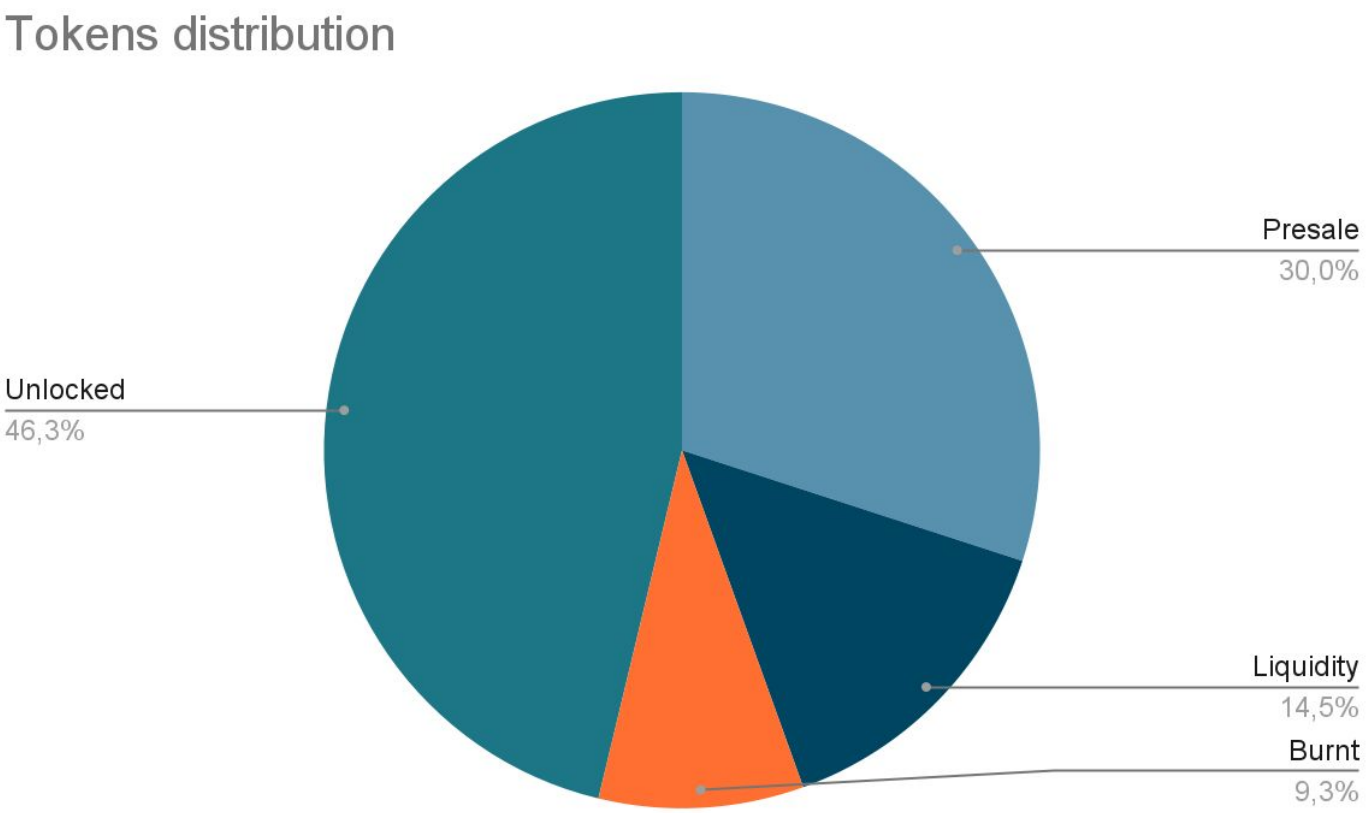
GOOD PRACTICES FOUND

- ✔ The owner cannot set a transaction limit

TOKENOMICS

The following tokenomics are based on Pinksale's presale page:

- 30% - Presale
- 15% - Liquidity
- 9.25% - Burnt
- 46.2% - Unlocked



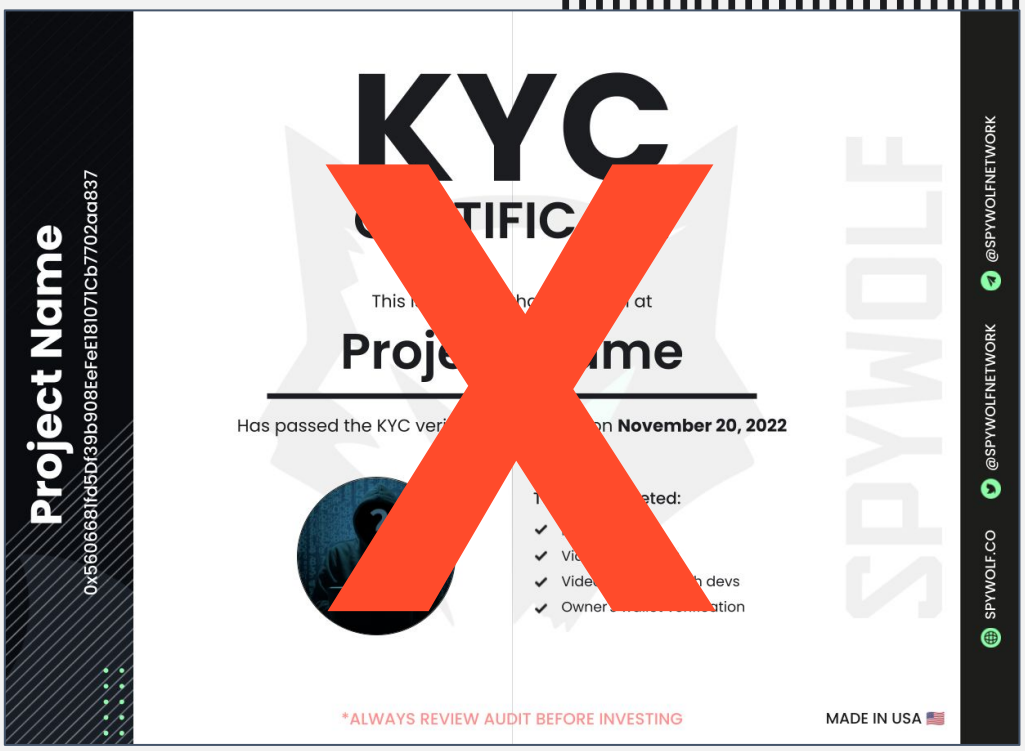
THE TEAM

⚠️ The team is annonymous

KYC INFORMATION

⚠️ No KYC

We recommend the team to get a KYC in order to ensure trust and transparency within the community.



WEBSITE

Website URL
https://thinu.net/

Domain Registry
https://www.registrar.eu

Domain Expiration
Expires on 2024-04-02

Technical SEO Test
Passed

Security Test
Passed. SSL certificate present

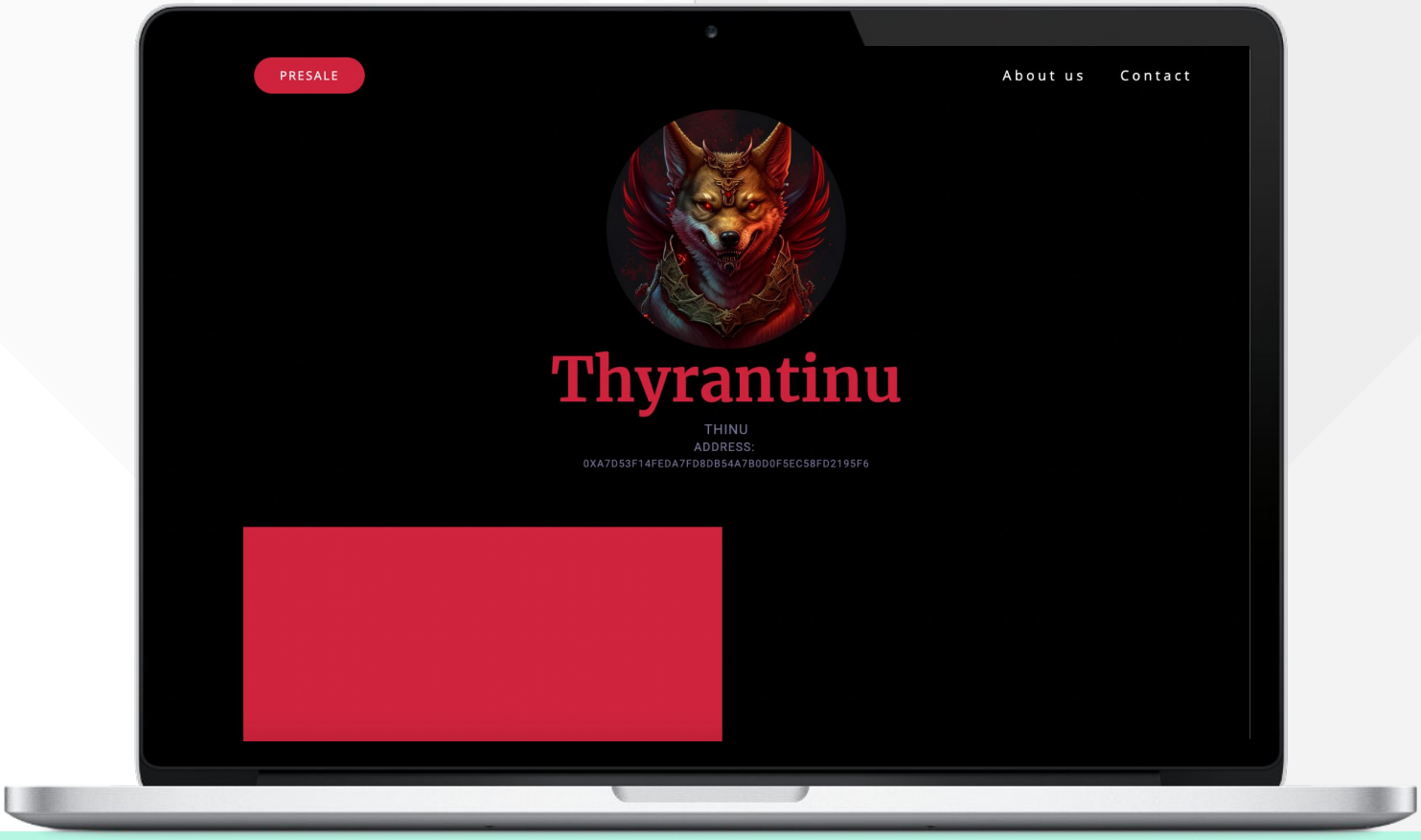
Design
Single page template design, with appropriate color scheme.

Content
The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper
No

Roadmap
Yes, goals set without time frames.

Mobile-friendly?
Yes



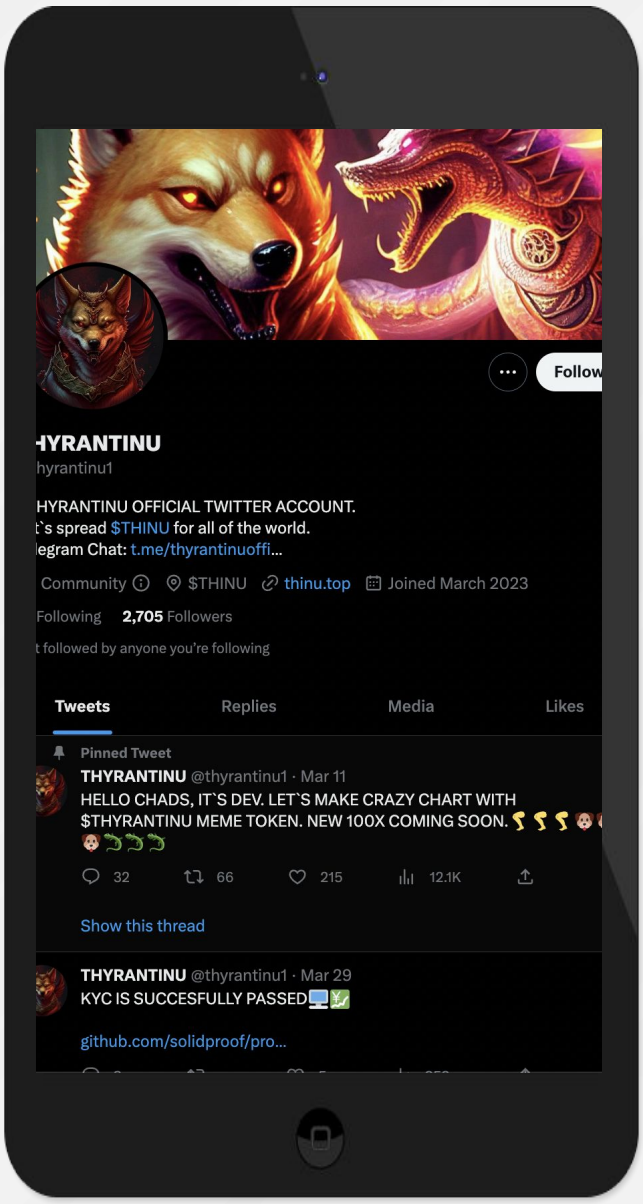
thinu.net

SOCIAL MEDIA

& ONLINE PRESENCE

ANALYSIS

Project's social media pages are fairly active



Twitter

@thyrantinu1

- 2 698 followers
- Active

Discord

- Not available

Telegram

@TelegramUSERNAME

- 1 518 members
- Active members
- Active mods

Medium

- Not available

SPYWOLF

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.
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No applications were reviewed for security. No product code has been reviewed.